



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

**Cianbro Fabrication and Coating
Corporation
Somerset County
Pittsfield, Maine
A-794-71-F-M**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #2**

FINDINGS OF FACT

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Cianbro Fabrication and Coating Corporation (Cianbro) was issued Air Emission License A-794-71-D-R/A on November 4, 2011, permitting the operation of emission sources associated with their metal fabrication and industrial coatings facility. The license was subsequently amended on September 23, 2013 (A-794-71-E-M).

Cianbro has requested a minor revision to their license in order to replace Boiler #2 located in their Coatings Facility. Boiler #2 was mentioned in license A-794-71-D-R/A for inventory purposes only because it was classified as an insignificant activity due to the boiler being less than 1.0 MMBtu/hr. The new unit replacing Boiler #2 is rated at 1.2 MMBtu/hr and fires propane.

The equipment addressed in this license is located at 335 Hunnewell Avenue in Pittsfield, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

Boilers

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Mfg. Date</u>	<u>Install. Date</u>
Boiler #2	1.2	12.8	Propane	2013	2014

C. Application Classification

This amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boiler #2

Cianbro operates Boiler #2 for heat in the Coatings Facility. The boiler is rated at 1.2 MMBtu/hr and fires propane. The boiler was manufactured in 2013 and installed in 2014.

Due to its size, Boiler #2 is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BACT Findings

The BACT emission limits for the boiler were based on the following:

Natural Gas

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 115, BACT
- SO₂ – 0.018 lb/1,000 gal based on AP-42, Table 1.5-1, dated 07/08 and an average sulfur content of 0.18 gr/100 ft³
- NO_x – 13 lb/1,000 gal based on AP-42, Table 1.5-1, dated 07/08
- CO – 7.5 lb/1,000 gal based on AP-42, Table 1.5-1, dated 07/08
- VOC – 1.0 lb/1,000 gal based on AP-42, Table 1.5-1, dated 07/08
- Opacity – 06-096 CMR 101

The BACT emission limits for the boiler are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler #2	0.06	0.06	0.01	0.17	0.10	0.01

Visible emissions from the boiler shall not exceed 10% opacity on a 6-minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period.

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the quantity and type of fuel used.

3. 40 CFR Part 63 Subpart JJJJJ

Boiler #2, as well as previously licensed equipment Boiler #1 and Heaters #1 and #2, are not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). Due to the units firing propane, they are each defined as a “gas-fired boiler” according to 40 CFR §63.11237, and are not subject to 40 CFR Part 63 Subpart JJJJJ. [40 CFR §63.11195(e)]

C. Annual Emissions

1. Total Annual Emissions

Cianbro shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits for Boiler #2 were calculated based on maximum year round operation of 8,760 hours per year:

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	Individual HAPS	Total HAPS
Boiler #1	0.2	0.2	0.03	0.7	0.1	0.03	-	-
Boiler #2	0.3	0.3	0.1	0.7	0.4	0.1	-	-
Heaters #1 & #2	2.0	2.0	0.3	5.9	0.8	0.2	-	-
Coating	-	-	-	-	-	49.5*	9.9	24.9
Total TPY	2.5	2.5	0.4	7.3	1.3	49.9	9.9	24.9

* The VOC tons per year emissions from the Coating Processes was reduced due to the addition of VOC emissions from new Boiler #2 and the facility wanting to remain below the major source threshold of 50 tons per year. The VOC emissions limit from the Coating Process is set at the maximum possible value to allow for growth in the company.

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

Based on the facility's fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, Cianbro is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III.AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

<u>Pollutant</u>	<u>Tons/Year</u>
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

The total facility licensed emissions are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-794-71-F-M subject to the conditions found in Air Emission License A-794-71-D-R/A, in amendment A-794-71-E-M, and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

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SPECIFIC CONDITIONS

Specific Condition (25) is to be added and read as follows:

(25) Boiler #2

A. Fuel

1. Boiler #2 shall fire propane. [06-096 CMR 115, BACT]
2. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of the fuel delivered. Records of fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BACT]

B. Emissions shall not exceed the following [06-096 CMR 115, BACT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2	0.06	0.06	0.01	0.17	0.10	0.01

- C. Visible emissions from Boiler #2 shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

DONE AND DATED IN AUGUSTA, MAINE THIS 4 DAY OF April, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

Maureen Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-794-71-D-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 01/16/2014

Date of application acceptance: 01/22/2014

Date filed with the Board of Environmental Protection:

This Order prepared by Allison M. Hazard, Bureau of Air Quality.

